

OIPE

## RAW SEQUENCE LISTING

DATE: 09/07/2001

PATENT APPLICATION: US/09/729,838

TIME: 16:40:43

Input Set : A:\010342-012-999.txt

Output Set: N:\CRF3\09072001\I729838.raw

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5 <110> APPLICANT: Lewis, Hal A
9 <120> TITLE OF INVENTION: Crystals and Structures of Luxs
13 <130> FILE REFERENCE: 010342-0012-999
C--> 17 <140> CURRENT APPLICATION NUMBER: US/09/729,838
C--> 17 <141> CURRENT FILING DATE: 2000-12-04
17 <150> PRIOR APPLICATION NUMBER: 60/237,933
19 <151> PRIOR FILING DATE: 2000-10-03
23 <160> NUMBER OF SEQ ID NOS: 13
27 <170> SOFTWARE: PatentIn version 3.1
31 <210> SEQ ID NO: 1
33 <211> LENGTH: 152
35 <212> TYPE: PRT
37 <213> ORGANISM: H. Pylori
41 <400> SEQUENCE: 1
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44 1 5 10 15
47 Ala Pro Tyr Val Arg Ile Ala Asp Arg Lys Lys Gly Val Asn Gly Asp
48 20 25 30
51 Leu Ile Val Lys Tyr Asp Val Arg Phe Lys Gln Pro Asn Arg Asp His
52 35 40 45
55 Met Asp Met Pro Ser Leu His Ser Leu Glu His Leu Val Ala Glu Ile
56 50 55 60
59 Ile Arg Asn His Ala Asn Tyr Val Val Asp Trp Ser Pro Met Gly Cys
60 65 70 75 80
63 Gln Thr Gly Phe Tyr Leu Thr Val Leu Asn His Asp Asn Tyr Thr Glu
64 85 90 95
67 Ile Leu Glu Val Leu Glu Lys Thr Met Gln Asp Val Leu Lys Ala Lys
68 100 105 110
71 Glu Val Pro Ala Ser Asn Glu Lys Gln Cys Gly Trp Ala Ala Asn His
72 115 120 125
75 Thr Leu Glu Gly Ala Gln Asn Leu Ala Arg Ala Phe Leu Asp Lys Arg
76 130 135 140
79 Ala Glu Trp Ser Glu Val Gly Val
80 145 150
83 <210> SEQ ID NO: 2
85 <211> LENGTH: 167
87 <212> TYPE: PRT
89 <213> ORGANISM: H. Influenzae
93 <400> SEQUENCE: 2
95 Met Pro Leu Leu Asp Ser Phe Lys Val Asp His Thr Lys Met Asn Ala
96 1 5 10 15
99 Pro Ala Val Arg Ile Ala Lys Thr Met Leu Thr Pro Lys Gly Asp Asn
100 20 25 30
103 Ile Thr Val Phe Asp Leu Arg Phe Cys Ile Pro Asn Lys Glu Ile Leu
104 35 40 45
107 Ser Pro Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe Met
108 50 55 60

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111 Arg Asp His Leu Asn Gly Asp Ser Ile Glu Ile Ile Asp Ile Ser Pro
112 65          70          75          80
115 Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Asn
116          85          90          95
119 Glu Gln Lys Val Ser Glu Ala Trp Leu Ala Ser Met Gln Asp Val Leu
120          100          105          110
123 Gly Val Gln Asp Gln Ala Ser Ile Pro Glu Leu Asn Ile Tyr Gln Cys
124          115          120          125
127 Gly Ser Tyr Thr Glu His Ser Leu Glu Asp Ala His Glu Ile Ala Lys
128          130          135          140
131 Asn Val Ile Ala Arg Gly Ile Gly Val Asn Lys Asn Glu Asp Leu Ser
132 145          150          155          160
135 Leu Asp Asn Ser Leu Leu Lys
136          165
139 <210> SEQ ID NO: 3
141 <211> LENGTH: 158
143 <212> TYPE: PRT
145 <213> ORGANISM: D. Radiodurans
149 <400> SEQUENCE: 3
151 Met Pro Asp Met Ala Asn Val Glu Ser Phe Asp Leu Asp His Thr Lys
152 1          5          10          15
155 Val Lys Ala Pro Tyr Val Arg Leu Ala Gly Val Lys Thr Thr Pro Lys
156          20          25          30
159 Gly Asp Gln Ile Ser Lys Tyr Asp Leu Arg Phe Leu Gln Pro Asn Gln
160          35          40          45
163 Gly Ala Ile Asp Pro Ala Ala Ile His Thr Leu Glu His Leu Leu Ala
164          50          55          60
167 Gly Tyr Met Arg Asp His Leu Glu Gly Val Val Asp Val Ser Pro Met
168 65          70          75          80
171 Gly Cys Arg Thr Gly Met Tyr Met Ala Val Ile Gly Glu Pro Asp Glu
172          85          90          95
175 Gln Gly Val Met Lys Ala Phe Glu Ala Ala Leu Lys Asp Thr Ala Gly
176          100          105          110
179 His Asp Gln Pro Ile Pro Gly Val Ser Glu Leu Glu Cys Gly Asn Tyr
180          115          120          125
183 Arg Asp His Asp Leu Ala Ala Ala Arg Gln His Ala Arg Asp Val Leu
184          130          135          140
187 Asp Gln Gly Leu Lys Val Gln Glu Thr Ile Leu Leu Glu Arg
188 145          150          155
191 <210> SEQ ID NO: 4
193 <211> LENGTH: 164
195 <212> TYPE: PRT
197 <213> ORGANISM: C. Jejuni
201 <400> SEQUENCE: 4
203 Met Pro Leu Leu Asp Ser Phe Lys Val Asp His Thr Lys Met Pro Ala
204 1          5          10          15
207 Pro Ala Val Arg Leu Ala Lys Val Met Lys Thr Pro Lys Gly Asp Asp
208          20          25          30
211 Ile Ser Val Phe Asp Leu Arg Phe Cys Ile Pro Asn Lys Asp Ile Met

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212          35          40          45
215 Ser Glu Lys Gly Thr His Thr Leu Glu His Leu Phe Ala Gly Phe Met
216          50          55          60
219 Arg Asp His Leu Asn Ser Asn Ser Val Glu Ile Ile Asp Ile Ser Pro
220 65          70          75          80
223 Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Asp
224          85          90          95
227 Glu Lys Ser Ile Ala Lys Ala Trp Glu Ala Ala Met Lys Asp Val Leu
228          100          105          110
231 Ser Val Ser Asp Gln Ser Lys Ile Pro Glu Leu Asn Ile Tyr Gln Cys
232          115          120          125
235 Gly Thr Cys Ala Met His Ser Leu Asp Glu Ala Lys Gln Ile Ala Gln
236          130          135          140
239 Lys Val Leu Asn Leu Gly Ile Ser Ile Ile Asn Asn Lys Arg Leu Lys
240 145          150          155          160
243 Leu Glu Asn Ala
247 <210> SEQ ID NO: 5
249 <211> LENGTH: 157
251 <212> TYPE: PRT
253 <213> ORGANISM: B. Burgdorferi
257 <400> SEQUENCE: 5
259 Met Lys Lys Ile Thr Ser Phe Thr Ile Asp His Thr Lys Leu Asn Pro
260 1          5          10          15
263 Gly Ile Tyr Val Ser Arg Lys Asp Thr Phe Glu Asn Val Ile Phe Thr
264          20          25          30
267 Thr Ile Asp Ile Arg Ile Lys Ala Pro Asn Ile Glu Pro Ile Ile Glu
268          35          40          45
271 Asn Ala Ala Ile His Thr Ile Glu His Ile Gly Ala Thr Leu Leu Arg
272          50          55          60
275 Asn Asn Glu Val Trp Thr Glu Lys Ile Val Tyr Phe Gly Pro Met Gly
276 65          70          75          80
279 Cys Arg Thr Gly Phe Tyr Leu Ile Ile Phe Gly Asp Tyr Glu Ser Lys
280          85          90          95
283 Asp Leu Val Asp Leu Val Ser Trp Leu Phe Ser Glu Ile Val Asn Phe
284          100          105          110
287 Ser Glu Pro Ile Pro Gly Ala Ser Asp Lys Glu Cys Gly Asn Tyr Lys
288          115          120          125
291 Glu His Asn Leu Asp Met Ala Lys Tyr Glu Ser Ser Lys Tyr Leu Gln
292          130          135          140
295 Ile Leu Asn Asn Ile Lys Glu Glu Asn Leu Lys Tyr Pro
296 145          150          155
299 <210> SEQ ID NO: 6
301 <211> LENGTH: 151
303 <212> TYPE: PRT
305 <213> ORGANISM: C. Perfringens
309 <400> SEQUENCE: 6
311 Met Val Lys Val Glu Ser Phe Glu Leu Asp His Thr Lys Val Lys Ala
312 1          5          10          15
315 Pro Tyr Val Arg Lys Ala Gly Ile Lys Ile Gly Pro Lys Gly Asp Ile

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316          20          25          30
319 Val Ser Lys Phe Asp Leu Arg Phe Val Gln Pro Asn Lys Glu Leu Leu
320          35          40          45
323 Ser Asp Lys Gly Met His Thr Leu Glu His Phe Leu Ala Gly Phe Met
324          50          55          60
327 Arg Glu Lys Leu Asp Asp Val Ile Asp Ile Ser Pro Met Gly Cys Lys
328 65          70          75          80
331 Thr Gly Phe Tyr Leu Thr Ser Phe Gly Asp Ile Asp Val Lys Asp Ile
332          85          90          95
335 Ile Glu Ala Leu Glu Tyr Ser Leu Ser Lys Val Leu Glu Gln Glu Glu
336          100         105         110
339 Ile Pro Ala Ala Asn Glu Leu Gln Cys Gly Ser Ala Lys Leu His Ser
340          115         120         125
343 Leu Glu Leu Ala Lys Ser His Ala Lys Gln Val Leu Glu Asn Gly Ile
344          130         135         140
347 Ser Asp Lys Phe Tyr Val Glu
348 145         150
351 <210> SEQ ID NO: 7
353 <211> LENGTH: 168
355 <212> TYPE: PRT
357 <213> ORGANISM: N. Meningitidis
361 <400> SEQUENCE: 7
363 Met Pro Leu Leu Asp Ser Phe Lys Val Asp His Thr Arg Met His Ala
364 1          5          10          15
367 Pro Ala Val Arg Val Ala Lys Thr Met Thr Thr Pro Lys Gly Asp Thr
368          20          25          30
371 Ile Thr Val Phe Asp Leu Arg Phe Cys Val Pro Asn Lys Glu Ile Leu
372          35          40          45
375 Pro Glu Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe Met
376          50          55          60
379 Arg Asp His Leu Asn Gly Asn Gly Val Glu Ile Ile Asp Ile Ser Pro
380 65          70          75          80
383 Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Ser
384          85          90          95
387 Glu Gln Gln Val Ala Asp Ala Trp Leu Ala Ser Met Gln Asp Val Leu
388          100         105         110
391 Asn Val Lys Asp Gln Ser Lys Ile Pro Glu Leu Asn Glu Tyr Gln Cys
392          115         120         125
395 Gly Thr Tyr Gln Met His Ser Leu Ala Glu Ala Gln Gln Ile Ala Gln
396          130         135         140
399 Asn Val Leu Ala Arg Lys Val Ala Val Asn Lys Asn Glu Glu Leu Thr
400 145         150         155         160
403 Leu Asp Glu Gly Leu Leu Asn Ala
404          165
407 <210> SEQ ID NO: 8
409 <211> LENGTH: 171
411 <212> TYPE: PRT
413 <213> ORGANISM: S. Typhimurium
417 <400> SEQUENCE: 8

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419 Met Pro Leu Leu Asp Ser Phe Ala Val Asp His Thr Arg Met Gln Ala
420 1 5 10 15
423 Pro Ala Val Arg Val Ala Lys Thr Met Asn Thr Pro His Gly Asp Ala
424 20 25 30
427 Ile Thr Val Phe Asp Leu Arg Phe Cys Ile Pro Asn Lys Glu Val Met
428 35 40 45
431 Pro Glu Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe Met
432 50 55 60
435 Arg Asp His Leu Asn Gly Asn Gly Val Glu Ile Ile Asp Ile Ser Pro
436 65 70 75 80
439 Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Asp
440 85 90 95
443 Glu Gln Arg Val Ala Asp Ala Trp Lys Ala Ala Met Ala Asp Val Leu
444 100 105 110
447 Lys Val Gln Asp Gln Asn Gln Ile Pro Glu Leu Asn Val Tyr Gln Cys
448 115 120 125
451 Gly Thr Tyr Gln Met His Ser Leu Ser Glu Ala Gln Asp Ile Ala Arg
452 130 135 140
455 His Ile Leu Glu Arg Asp Val Arg Val Asn Ser Asn Lys Glu Leu Ala
456 145 150 155 160
459 Leu Pro Lys Glu Lys Leu Gln Glu Leu His Ile
460 165 170
463 <210> SEQ ID NO: 9
465 <211> LENGTH: 172
467 <212> TYPE: PRT
469 <213> ORGANISM: V. Harveyi
473 <400> SEQUENCE: 9
475 Met Pro Leu Leu Asp Ser Phe Thr Val Asp His Thr Arg Met Asn Ala
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479 Pro Ala Val Arg Val Ala Lys Thr Met Gln Thr Pro Lys Gly Asp Thr
480 20 25 30
483 Ile Thr Val Phe Asp Leu Arg Phe Thr Ala Pro Asn Lys Asp Ile Leu
484 35 40 45
487 Ser Glu Lys Gly Ile His Thr Leu Glu His Leu Tyr Ala Gly Phe Met
488 50 55 60
491 Arg Asn His Leu Asn Gly Asp Ser Val Glu Ile Ile Asp Ile Ser Pro
492 65 70 75 80
495 Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Thr Pro Ser
496 85 90 95
499 Glu Gln Gln Val Ala Asp Ala Trp Ile Ala Ala Met Glu Asp Val Leu
500 100 105 110
503 Lys Val Glu Asn Gln Asn Lys Ile Pro Glu Leu Asn Glu Tyr Gln Cys
504 115 120 125
507 Gly Thr Ala Ala Met His Ser Leu Asp Glu Ala Lys Gln Ile Ala Lys
508 130 135 140
511 Asn Ile Leu Glu Val Gly Val Ala Val Asn Lys Asn Asp Glu Leu Ala
512 145 150 155 160
515 Leu Pro Glu Ser Met Leu Arg Glu Leu Arg Ile Asp
516 165 170

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/729,838

DATE: 09/07/2001

TIME: 16:40:44

Input Set : A:\010342-012-999.txt

Output Set: N:\CRF3\09072001\I729838.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application No

L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date